MALOV, VLADIMIR SERGEYEVICH

MALOV, Vladimir Sergeyevich; MESHKOV, Vadim Konstantinovich; ZEYDLIDZON, I.M., redaktor; SAVORTSOV, I.M., tekhnicheskiy redaktor.

[The control rooms of electric power systems] Dispetcherskie punkty energeticheskikh sistem. Moskva, Gos. energeticheskoe izd-vo, 1955. 271 p. (MLRA 8:3)
(Electric power distribution)

GAVRILOV, M.A., otvetstvennyy redaktor; IL'IN, V.A., redaktor; KRASIVSKIY, S.P., redaktor; KURDYUKOV, K.P., redaktor; MALOV, V.S., redaktor; RAYNES, R.L., redaktor; BRYLEYEV, A.M., redaktor; GRAKOVA, Ye.D., tekhnicheskiy redaktor

[Telemechanics in power engineering systems] Telemekhanizatsiia energosistem; materialy soveshchaniia 1952 g. po telemekhanizatsii energosistem. Moskva, Izd-vo Akademii nauk SSSR, 1954. 213 p. (MLRA 8:3)

1. Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki. (Remote control) (Electric power)

MALOV, V. S.

"The Improvement of the Distance-Measurement Equipment of Remote Action" from the book Remote Control of Power Systems, published by the AS USSR, 1954.

MALOV, V.S.

Problems of development of telemetering systems for long distances. (MLRA 6:2)
Elektrichestvo '53, No.1, 7-11.
(EEA 56 no.670:4090 '53)

In connection with directives laid down by 19th party congress for introduction of telemechanization into power systems during 5th Five-Year Plan (1951-1955), author describes briefly and generally different basic long-distance telemetering systems, their characteristics, and major components.
253T14
Submitted 25 Aug 52

MALOV, V.S.

GINZBURG, S.A.; LEKHTMAN, I.Ya.; MALOV, V.S.

[Fundamentals of automatic and remote control] Osnovy avtomatiki i telemekhaniki. Moskva, Gos.energ.izd-vo, 1953. 432 p. (MLRA 6:12)
(Automatic control) (Remote control)

MALOV, V. S.

"Balanced Conversions in Telemetering," Avtomat. i Telemekh., 13, No.5, pp. 571-77, 1952. Central Scientific Research Electrical Engineering Laboratory, Ministry of Electric Power Stations.

Balanced converters are the transforming links in telemetering systems and are constructed to compare an input and output magnitude (error-measuring means). Attempts to generalize methods for analyzing balanced conversions by extending these methods to all characteristic types of converters used in telemetering. Analysis holds only for steady-state conditions. Submitted 15 Jun 51

256T63

MAKSIMOV, M.V.; MALOV, V.S., red.; LARIONOV, G.Ye., tekhn.red.

[Telemetering devices] Teleizmeritel'nye ustroistva. Moskva, Gos.energ.izd-vo, 1951. 55 p. (Massovaia radiobiblioteka, no.108) (MIRA 12:5)

(Telemetering)

MALOV, V. S. Engineer

"Telemetric Systems of the Frequency Class."
Thesis for degree of Cand. Technical Sci.
Sub 29 Dec 50, Moscow Order of Lenin Power
Engineering Inst imeni V. M. Molotov

Summary 71, 4 Sep 52, Dissertations
Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva,
Jan-Dec 1950.

MALOV, V.S. (Tashkent)

Residential heating system combined with hot-water supply.
Vod. i san. tekh. no.7:28-29 Jl '61. (MIRA 14:7)
(Hot-water supply)

MALOV, V.S. (Tashkent)

Single-pipe circulation diagram of outside hot-water supply networks. Vod.i san.tekh. no.7:26-27 Jl '57. (MIRA 10:11)
(Hot-water heating)

MALOV, V.P., kand.tekhn.nauk

Comparison of development methods; response to V.T.IArmoliuk's article "Narrow and wide working methods for coal mining." Ugol' Ukr. 4 no.12:38 D '60. (MIRA13:12)

1. Donetskiy politekhnicheskiy institut.
(Coal mines and mining)

MALOV, V.P.; SAPITSKIY, K.F. [Sapitskyi, K.F.]

Development of systems for working anthracite formations of the Chistyakovo area of the Donets Basin. Nar.z ist.tekh. no.5: 96-111 '59. (MIRA 13:5)
(Donets Basin--Coal mines and mining)

SAPITSKIY, K.F., kand. tekhn. nauk; MALOV, V.P., kand. tekhn. nauk

Determining an efficient face length for mining with the DU-1 narrow range cutter-loader. Ugol' Ukr. 2 no.2:7-8 F '58. (MIRA 13:3)

(Coal mines and mining) (Coal mining machinery)

ZHIZLOV, N.I., kand.tekhn.nauk, nauchnyy rabotnik; ZBORSHCHIK, M.P., inzh.; nauchnyy rabotnik; ZEMLYANSKIY, L.V., inzh., nauchnyy rabotnik; KOREPANOV, K.A., kand.tekhn.nauk, nauchnyy rabotnik; MALOV, V.P., kand.tekhn.nauk, nauchnyy rabotnik; MEDVEDEV, B.I., kand.tekhn. nauk, nauchnyy rabotnik; NOVITSKIY, A.M., kand.tekhn.nauk, nauchnyy rabotnik; PROKOF'YEV, V.P., nauchnyy rabotnik; SAPITSKIY, K.F., kand.tekhn.nauk, nauchnyy rabotnik; YAKUSHEVSKIY, A.Yu., kand.tekh.nauk, nauchnyy rabotnik; LIPKOVICH, S.M., dotsent, red.; SHUSHKOVSKAYA, Ye.L., red.izd.; BERESLAVSKAYA, L.Sh., tekhn.red.; ALADOVA, Ye.I., tekhn.red.

[Working gently sloping seams at great depths] Razrabotka pologo-padaiushchikh plastov na bol'shikh glubinakh. Pod obshchei red. S.M.Lipkovicha. Moskva, Ugletekhizdat, 1958. 209 p. (MIRA 12:2)

1. Stalino. Donetskiy industrial'nyy institut. 2. Donetskiy industrial'nyy institut (for all except Lipkovich, Shushkovskaya, Bereslavskaya, Aladova)
(Coal mines and mining)

MALOV, V. P.

MALOV, V. P.- "Investigation of the Field of Applicability of Mining Methods with and Without the Use of Gravity Inclines under the Conditions Prevailing in the Chistyakov Anthracite Region." Min of Higher Education USSR, Donets Order of Labor Red Banner Industrial Inst imeni N. S. Khrushchev, Stalino. 1955 (Dissertations For Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

MALOV, V.P., veterinarnyy vrach.

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1. Moskovskaya gorodskaya obraztsovaya kuznitsa.

MAYDANIK, K.L., kand. ist. nauk; KISLYAKOV, V.S., kand. ist. nauk; PETRANOVICH, I.M., kand. ekon. nauk; PESCHANSKIY, V.V., kand. ist. nauk; USVYATSOV, A.Ye., kand. ekon. nauk; KHOLODKOVSKIY, K.G.,; BURDZHALOV, F.E.; VIL'KHOVCHENKO, E.D.; MALOV, V.N.; PETROVA, Z.A.; ARZUMANYAN, A.A., glav. red.; TIMOFEYEV, T.T., zam.glav. red.; RYMALOV, V.V., red.; LYUBIMOVA, V.V., red.; SHEVLYAGIN, D.P., red.; VEYNBERG, F., red.; DANILINA, A., tekhn. red.

[Labor movement in capitalist countries, 1959 - 1961] Rabochee dvizhenie v kapitalisticheskikh stranakh, 1959 - 1961 gg. Moskva, Gos. izd-vo polit. lit-ry, 1961. 583 p. (MIRA 14:12)

1. Akademiya nauk SSSR. Institut mirovoy ekonomiki i mezhdunarodnykh otnosheniy. 2. Sektor mezhdunarodnogo rabochego i kommunisticheskogo dvizheniya Instituta mirovoy ekonomiki i mezhdunarodnykh otnosheniy (for Maydanik, Kislyakov, Petranovich, Peschanskiy, Usvyatsov, Kholodkovskiy, Burdzhalov, Vil'khovchenko, Malov, Petrova).

(Labor and laboring classes)

MALOV, V.N.; URNIS, A.F.; UDALOV, K.N.

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(Mathematics--Problems, exercises, etc.)
(Physics--Problems, exercises, etc.)

MALOV, V.I., inzh.

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1. Moskovskiy inzhenerno-stroitel'nyy institut imeni V.V.Kuybysheva.

MALOV, V.I., inzh., dissertant

Hydraulics of granular materials. Teploenergetika 12 no.3: 78-81 Mr '65. (MIRA 18:6)

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MALOV, V.I.

Combining trades on ships of the Northwest River Line. Rech. transp. 17 no.8:7-9 Ag '58. (MIRA 11:10)

1. Nachal'nik Severo-Zapadnogo parokhodstva.
(Russia, Northwestern--Inland water transportation--Employees)

MALOV, V.I.

Success for river workers of the Northwestern Steamship Company.
Rech.transp. 16 no.11:7-8 N '57. (MIRA 10:12)

1. Nachal'nik Severo-Zapadnogo parokhodstva.
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MALOV, V.F., inzh.

Experience in automating a waterside pumping house. Elek.sta. 32 no.6:81-82 Je '61. (MIRA 14:8)
(Automatic control) (Pumping stations)

MALOV, V.D.

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1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut (VSEGEI), Leningrad.

MALOV, V.S.; NIKOLAYEV, K.N.

"Shayanaul faunal horizon" of the Agyrek Mountains in northeastern Kazakhstan. Trudy VSEGEI 111:21-24 '64. (MIRA 18:7)

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Summer agricultural work of Pioneer detachments on collective farms. Biol.v shkole no.4:53-58 Jl-Ag '57. (MLRA 10:8)

1.Direktor Grabtsevskoy semiletney shkoly Kaluzhskogo rayona Kaluzhskoy oblasti (for Zaretskiy). 2.Kaluzhskiy pedagogicheskiy institut (for Malov).
(Kaluga Province--Agriculture--Study and teaching)
(Pioneers (Communist Youth))

MALOV, V.

Campaign to improve industrial safety and safety engineering.
Rech. transp. 20 no. 2:14-16 F '61. (MIRA 14:2)

1. Nachal'nik Severo-Zapadnogo rechnogo parokhodstva.
(Inland water transportation--Safety measures)

MALOV, V.

MALOV, V., inzhener; POCHENKOV, Ye., inzhener; SAPITSKIY, K., inzhener.

Continuous work cycles is the basis for the reduction of fuel costs. Mast.ugl. 3 no.7:10-11 Jl '54. (MLRA 7:7)
(Coal mines and mining)

BOYARINOVA, A.P., inzhener.; Malov, S.I., inzhener.

Reasons for unsatisfactory plasticity of iron-chronium-aluminum resistance alloys. Stal' 17 no.3:280 Mr '57. (MIRA 10:4)

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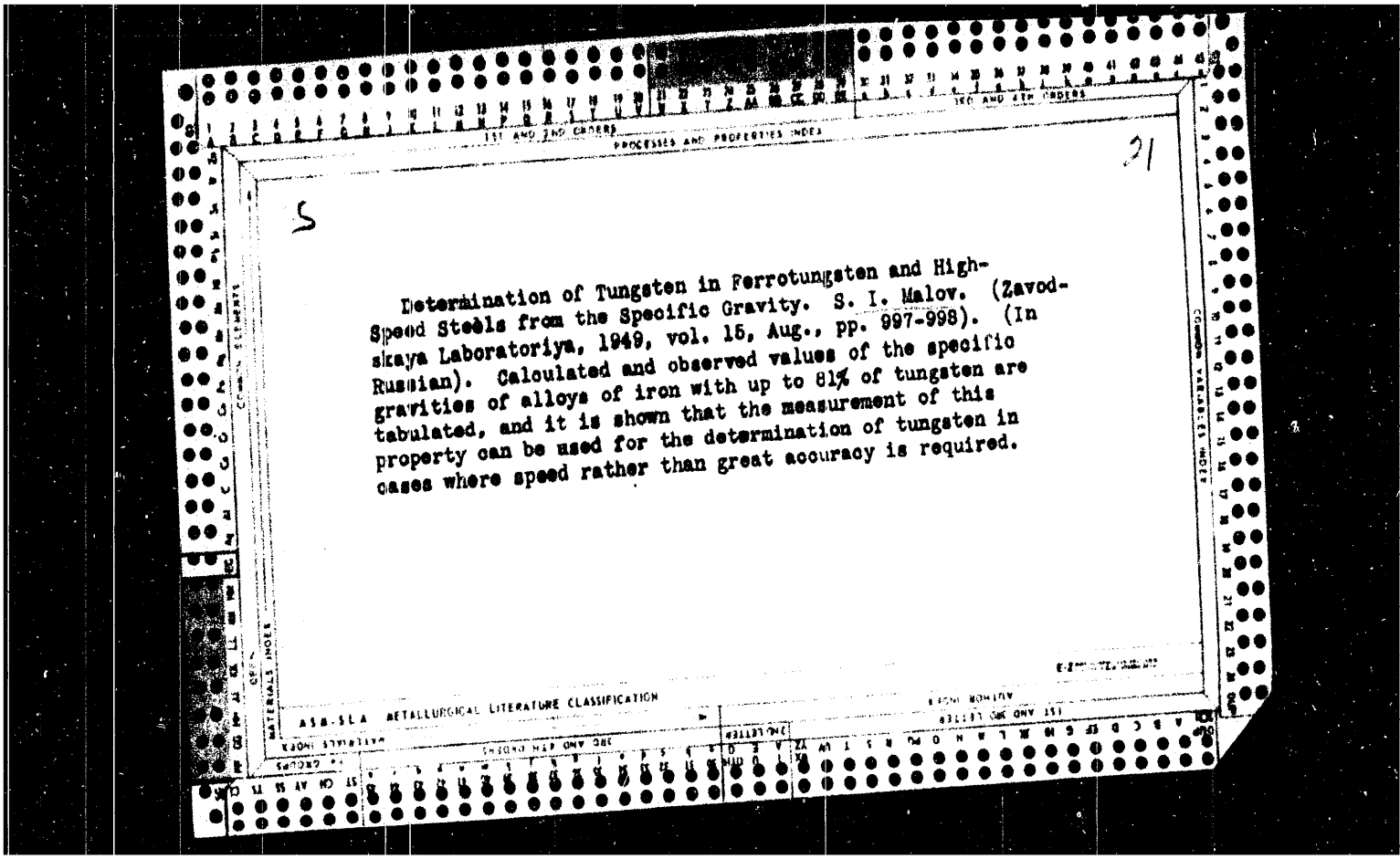
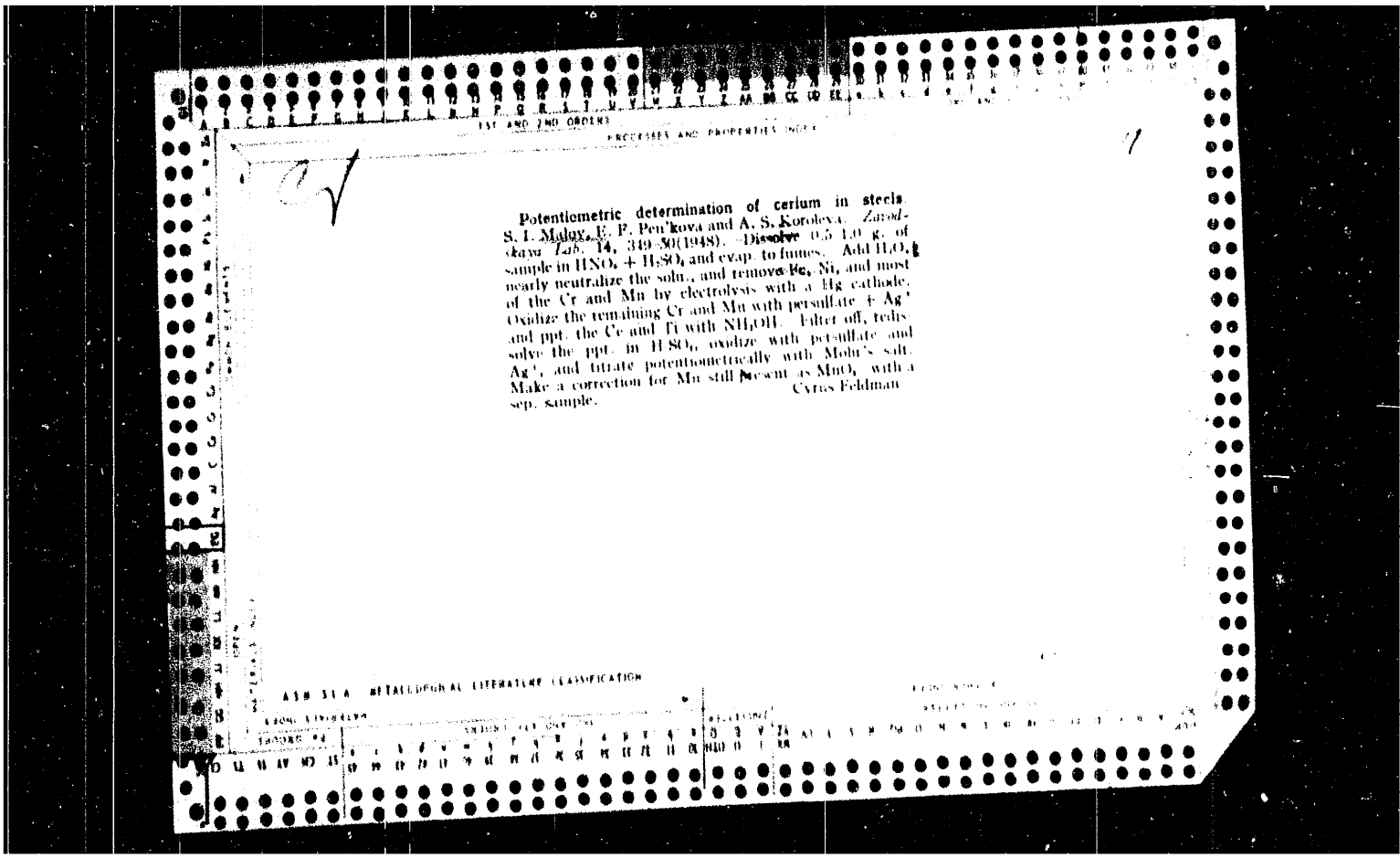
(Iron-chromium-aluminum alloys--Electric properties)
(Plasticity)



S

21

Determination of Tungsten in Ferrotungsten and High-Speed Steels from the Specific Gravity. S. I. Malov. (Zavodskaya Laboratoriya, 1949, vol. 15, Aug., pp. 997-998). (In Russian). Calculated and observed values of the specific gravities of alloys of iron with up to 81% of tungsten are tabulated, and it is shown that the measurement of this property can be used for the determination of tungsten in cases where speed rather than great accuracy is required.



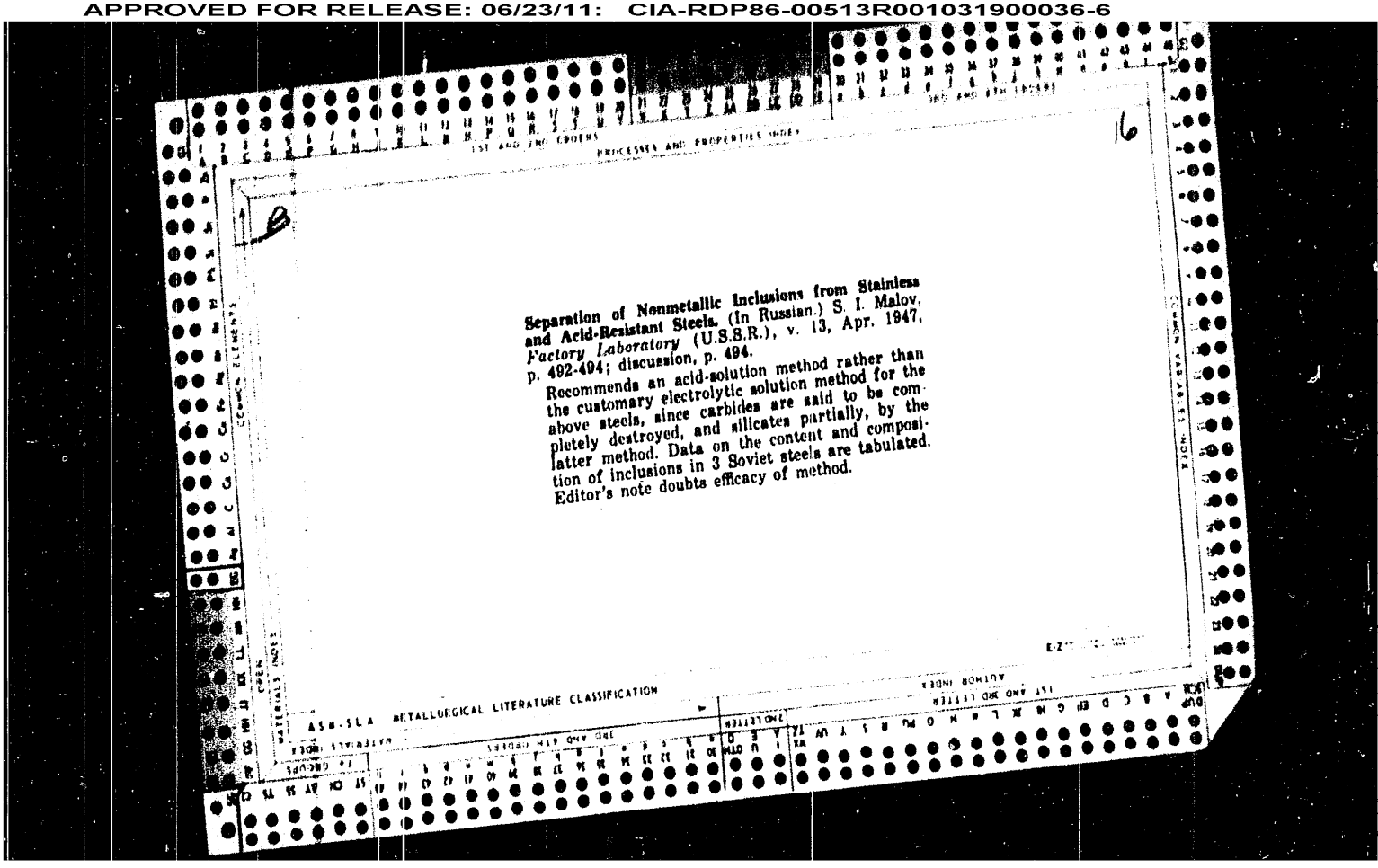
1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Potentiometric determination of cerium in steels. S. I. Malov, E. P. Pen'kova and A. S. Koroleva. *Zavodskaya Lab.* 14, 349-50(1948). Dissolve 0.5-1.0 g. of sample in $HNO_3 + H_2SO_4$ and evap. to fumes. Add H_2O, nearly neutralize the soln., and remove Fe, Ni, and most of the Cr and Mn by electrolysis with a Hg cathode. Oxidize the remaining Cr and Mn with persulfate + Ag^+ and ppt. the Ce and Ti with NH_4OH. Filter off, redissolve the ppt. in H_2SO_4, oxidize with persulfate and Ag^+, and titrate potentiometrically with Mohr's salt. Make a correction for Mn still present as MnO_2 with a sep. sample.

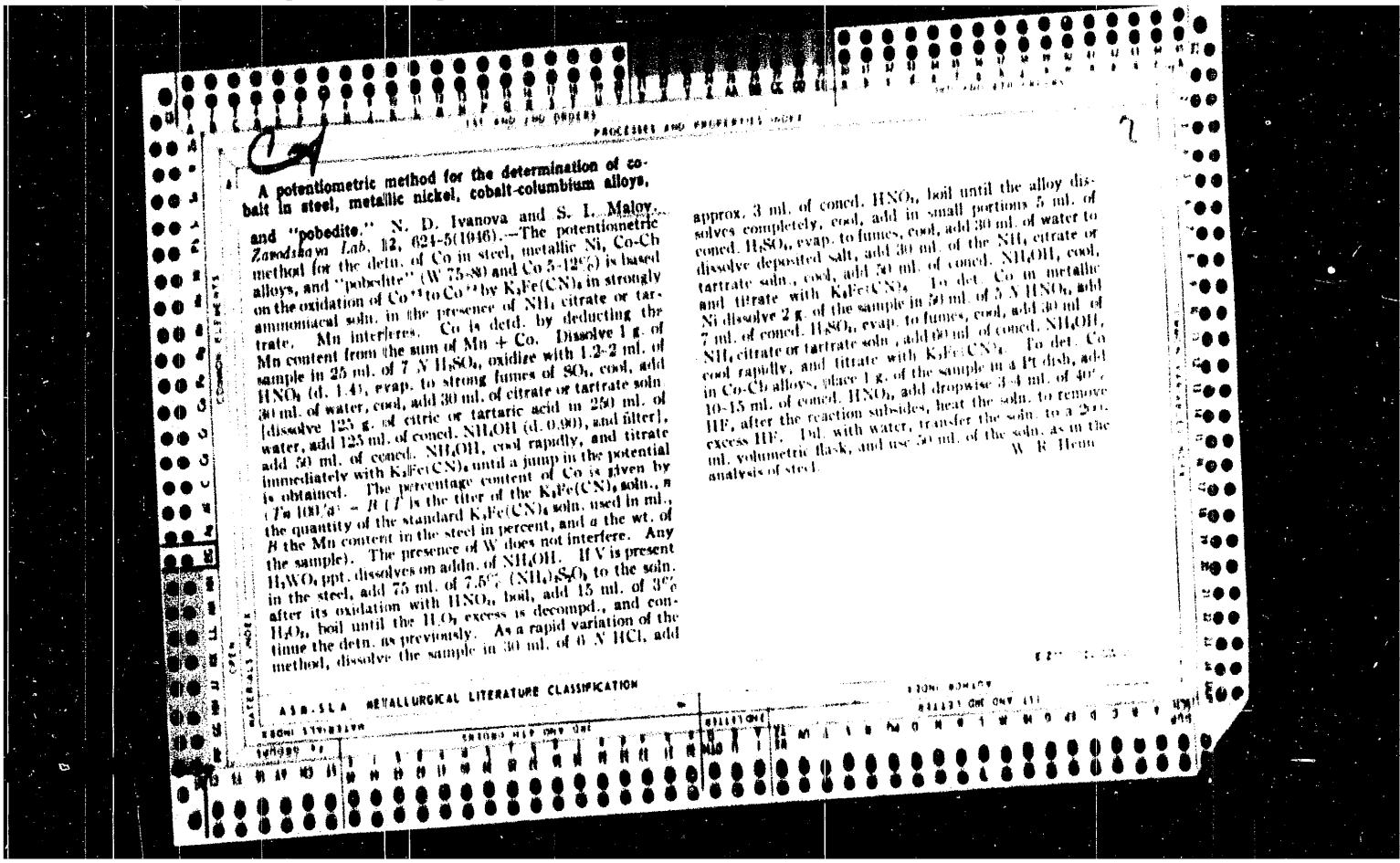
Cyrus Feldman

A1B 31A METALLURGICAL LITERATURE CLASSIFICATION



Separation of Nonmetallic Inclusions from Stainless and Acid-Resistant Steels. (In Russian.) S. I. Malov, *Factory Laboratory* (U.S.S.R.), v. 13, Apr. 1947, p. 492-494; discussion, p. 494.

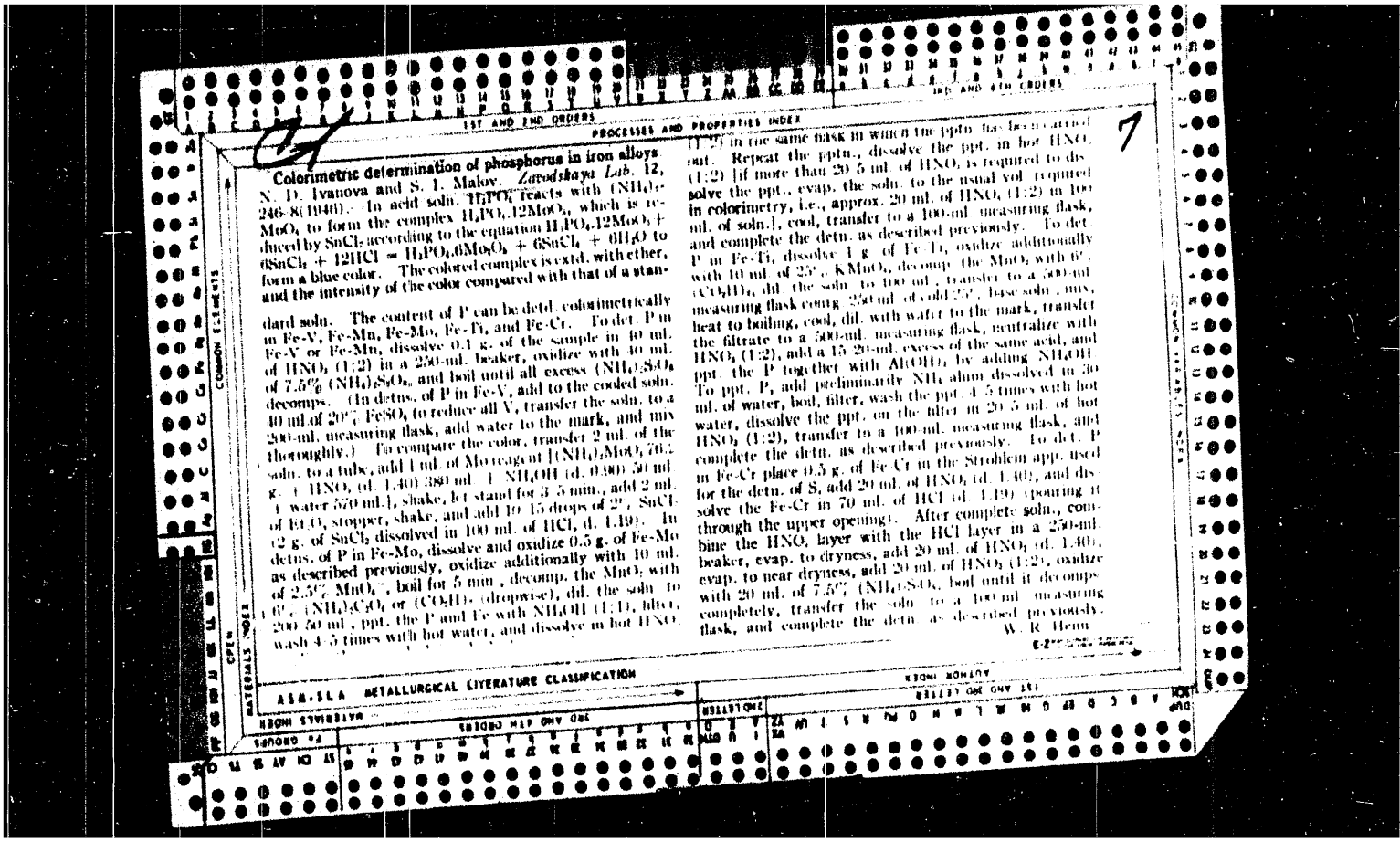
Recommends an acid-solution method rather than the customary electrolytic solution method for the above steels, since carbides are said to be completely destroyed, and silicates partially, by the latter method. Data on the content and composition of inclusions in 3 Soviet steels are tabulated. Editor's note doubts efficacy of method.



A potentiometric method for the determination of cobalt in steel, metallic nickel, cobalt-columbium alloys, and "pobedite." N. D. Ivanova and S. I. Maloy. *Zavodskaya Lab.* 12, 624-5(1946).—The potentiometric method for the detn. of Co in steel, metallic Ni, Co-Cb alloys, and "pobedite" (W 75-80 and Co 5-12%) is based on the oxidation of Co^{++} to Co^{+++} by $K_3Fe(CN)_6$ in strongly ammoniacal soln. in the presence of NH_4 citrate or tartrate. Mn interferes. Co is detd. by deducting the Mn content from the sum of Mn + Co. Dissolve 1 g. of sample in 25 ml. of 7 *N* H_2SO_4, oxidize with 1.2-2 ml. of HNO_3 (d. 1.4), evap. to strong fumes of SO_3, cool, add 30 ml. of water, cool, add 30 ml. of citrate or tartrate soln [dissolve 125 g. of citric or tartaric acid in 250 ml. of water, add 125 ml. of concd. NH_4OH (d. 0.90), and filter], add 50 ml. of concd. NH_4OH, cool rapidly, and titrate immediately with $K_3Fe(CN)_6$ until a jump in the potential is obtained. The percentage content of Co is given by $(T_a 100/a) - B(T$ is the titer of the $K_3Fe(CN)_6$ soln., *a* the quantity of the standard $K_3Fe(CN)_6$ soln. used in ml., *B* the Mn content in the steel in percent, and *a* the wt. of the sample). The presence of W does not interfere. Any H_2WO_4 ppt. dissolves on addn. of NH_4OH. If V is present in the steel, add 75 ml. of 7.5% $(NH_4)_2S_2O_8$ to the soln. after its oxidation with HNO_3, boil, add 15 ml. of 3% H_2O_2, boil until the H_2O_2 excess is decompd., and continue the detn. as previously. As a rapid variation of the method, dissolve the sample in 30 ml. of 6 *N* HCl, add approx. 3 ml. of concd. HNO_3, boil until the alloy dissolves completely, cool, add in small portions 5 ml. of concd. H_2SO_4, evap. to fumes, cool, add 30 ml. of water to dissolve deposited salt, add 30 ml. of the NH_4 citrate or tartrate soln., cool, add 50 ml. of concd. NH_4OH, cool, and titrate with $K_3Fe(CN)_6$. To det. Co in metallic Ni dissolve 2 g. of the sample in 50 ml. of 5 *N* HNO_3, add 7 ml. of concd. H_2SO_4, evap. to fumes, cool, add 30 ml. of NH_4 citrate or tartrate soln., add 50 ml. of concd. NH_4OH, cool rapidly, and titrate with $K_3Fe(CN)_6$. To det. Co in Co-Cb alloys, place 1 g. of the sample in a Pt dish, add 10-15 ml. of concd. HNO_3, add dropwise 3-4 ml. of 40% HF, after the reaction subsides, heat the soln. to remove excess HF. Dil. with water, transfer the soln. to a 250-ml. volumetric flask, and use 50 ml. of the soln. as in the analysis of steel.

W. R. Heun

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

Colorimetric determination of phosphorus in iron alloys

N. D. Ivanova and S. I. Malov. *Zavodskaya Lab.* 12, 246-8(1940).—In acid soln. H_3PO_4 reacts with $(NH_4)_2MoO_4$ to form the complex $H_3PO_4.12MoO_3$, which is reduced by $SnCl_2$ according to the equation $H_3PO_4.12MoO_3 + 6SnCl_2 + 12HCl = H_3PO_4.6Mo_2O_5 + 6SnCl_4 + 6H_2O$ to form a blue color. The colored complex is extd. with ether, and the intensity of the color compared with that of a standard soln. The content of P can be detd. colorimetrically in Fe-V, Fe-Mn, Fe-Mo, Fe-Ti, and Fe-Cr. To det. P in Fe-V or Fe-Mn, dissolve 0.1 g. of the sample in 40 ml. of HNO_3 (1:2) in a 250-ml. beaker, oxidize with 40 ml. of 7.5% $(NH_4)_2S_2O_8$ and boil until all excess $(NH_4)_2S_2O_8$ decomps. (In detns. of P in Fe-V, add to the cooled soln. 40 ml of 20% $FeSO_4$ to reduce all V, transfer the soln. to a 200-ml. measuring flask, add water to the mark, and mix thoroughly.) To compare the color, transfer 2 ml. of the soln. to a tube, add 1 ml. of Mo reagent [$(NH_4)_2MoO_4$ 70.2 g., + HNO_3 (d. 1.40) 380 ml. + NH_4OH (d. 0.90) 50 ml. + water 570 ml.], shake, let stand for 3–5 min., add 2 ml. of Et_2O, stopper, shake, and add 10–15 drops of 2% $SnCl_2$ (2 g. of $SnCl_2$ dissolved in 100 ml. of HCl, d. 1.19). In detns. of P in Fe-Mo, dissolve and oxidize 0.5 g. of Fe-Mo as described previously, oxidize additionally with 10 ml. of 2.5% MnO_4^-, boil for 5 min., decomp. the MnO_2 with 6% $(NH_4)_2C_2O_4$ or $(CO_2H)_2$ (dropwise), dil. the soln. to 200–50 ml., ppt. the P and Fe with NH_4OH (1:1), filter, wash 4–5 times with hot water, and dissolve in hot HNO_3 (1:2) in the same flask in which the ppn. has been carried out. Repeat the pptn., dissolve the ppt. in hot HNO_3 (1:2) [if more than 20–5 ml. of HNO_3 is required to dissolve the ppt., evap. the soln. to the usual vol. required in colorimetry, i.e., approx. 20 ml. of HNO_3 (1:2) in for ml. of soln.], cool, transfer to a 100-ml. measuring flask, and complete the detn. as described previously. To det. P in Fe-Ti, dissolve 1 g. of Fe-Ti, oxidize additionally with 10 ml. of 25% $KMnO_4$, decomp. the MnO_2 with 6% $(CO_2H)_2$, dil. the soln. to 100 ml., transfer to a 500-ml. measuring flask contg. 250 ml. of cold 5% base soln., mix, heat to boiling, cool, dil. with water to the mark, transfer the filtrate to a 500-ml. measuring flask, neutralize with HNO_3 (1:2), add a 15–20-ml. excess of the same acid, and ppt. the P together with $Al(OH)_3$ by adding NH_4OH. To ppt. P, add preliminarily NH_4 alum dissolved in 30 ml. of water, boil, filter, wash the ppt. 4–5 times with hot water, dissolve the ppt. on the filter in 20–5 ml. of hot HNO_3 (1:2), transfer to a 100-ml. measuring flask, and complete the detn. as described previously. To det. P in Fe-Cr place 0.5 g. of Fe-Cr in the Strohlein app. used for the detn. of S, add 20 ml. of HNO_3 (d. 1.40), and dissolve the Fe-Cr in 70 ml. of HCl (d. 1.19) (pouring it through the upper opening). After complete soln., combine the HNO_3 layer with the HCl layer in a 250-ml. beaker, evap. to dryness, add 20 ml. of HNO_3 (d. 1.40), evap. to near dryness, add 20 ml. of HNO_3 (1:2), oxidize with 20 ml. of 7.5% $(NH_4)_2S_2O_8$, boil until it decomps. completely, transfer the soln. to a 100-ml. measuring flask, and complete the detn. as described previously.

W. R. Hemm

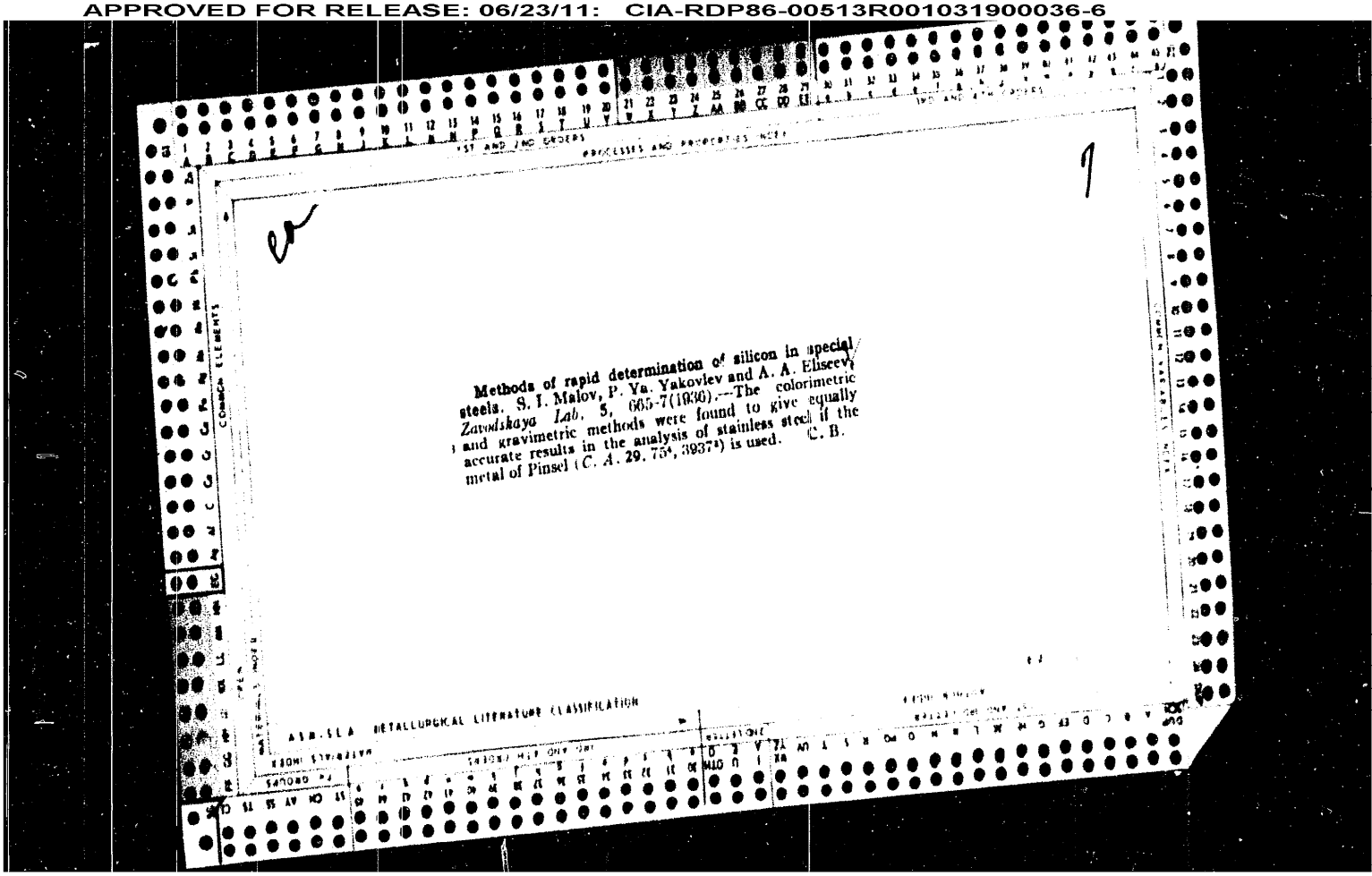
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Ca

7

Oxidimetric and colorimetric methods for determining cobalt in steels. S. I. Malov and A. A. Eliseev. *Zavodskaya Lab.*, **7**, 145–8(1938). In the oxidimetric method $Fe(OH)_3 + Co(OH)_3$ is pptd. by treating the HCl soln. with 15% NaOH and NaClO. The Co^{+++} is then reduced to Co^{++} by dissolving the ppt. in a standard $FeSO_4$ soln. contg. H_2SO_4 and Co is detd. by titrating back the excess $FeSO_4$ with $KMnO_4$. The method is suited for the approx. detn. of Co because of the uncertainty of the removal of the occluded NaClO in the ppt. by washing and that of the complete oxidation of Co^{++}. More rapid and accurate results can be obtained by a modified John H. Yoe (*Photometric Chem. Analysis*, *C. A.* **23**, 2125) colorimetric detn. with 1-nitro-2-naphthol. Full details are given for the detn. of 2.5–32% Co in various steel alloys.

Chas. Blanc



Methods of rapid determination of silicon in special steels. S. I. Malov, P. Ya. Yakovlev and A. A. Eliseev. *Zavodskaya Lab.* 5, 665-7(1936).—The colorimetric and gravimetric methods were found to give equally accurate results in the analysis of stainless steel if the metal of Pinsel (*C. A.* 29, 754, 3937[3]) is used. C. B.

MALOV, S.

Exports of raw materials and manufactured goods [with English summary in insert]. Vnesh.torg. 28 no.11:42-51 '58. (MIRA 11:12)

(Russia--Commerce)

ACC NR: AP6019036

ing parameter, and k_c is the diffusion coefficient reduced to the concentration gradient and controlled by Fick's law. The neutralizing apparatus designed from this formula provided for complete purification from CO of the exhaust gases of the GAZ-51 automobile under every possible operating condition. Orig. art. has: 4 fig., 4 formulas, and 1 table.

SUB CODE: 07/ SUBM DATE: 07Jan65/ ORIG REF: 003

Card 3/3

ACC NR: AP6019036

The MZMA-407 carburetor engine was used as a generator for the gases. The catalyst was charged into the reactor (see Fig. 1, where 1 is the body of the reactor, 2 is the reactor screen, 3 is the cover, 4 is a pipe for taking samples, and 5 is a thermocouple) between two stainless steel screens. Platinum applied to the Al_2O_3 spheres (diameter 3-5 mm) was used as a catalyst. One gram of Pt was needed for producing 1 kg of catalytic elements. Two types of catalysts were tested: (1) with surface coating of the balls with Pt, and (2) with surface coating with part of the Pt penetrating deep into the grains of the spheres (internal diffusion).

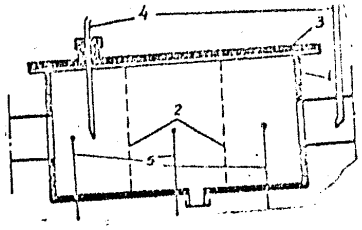


Figure 1.

The process of combustion was investigated in both types of catalyst at a temperature $\leq$ 400C. The curves were plotted in coordinates $a = F(t)$, where $a = [(c_i - c_f)/c_i] \cdot 100$, t is the temperature, and c_i and c_f are concentrations of CO in the gases at the entrance and exit of the reactor, respectively. The interpretation of the curves showed that at $\leq$ 200C the reaction occurred in the kinetic region. At gas temperatures > 300C the diffusion of the components to the active centers of the catalytic elements played a predominant part in combustion. It was shown that the quantity of catalytic elements necessary for the entire detoxication of exhaust gases could be calculated from the criterial equation $Sh = 0.05\ Re^{0.7}$, where Re is the Reynolds criterion, Sh is the Sherwood crit. $= \beta_c D/k_c$, β_c is the constant of the diffusion rate reduced to the difference in concentrations, d is the controll-

Card 2/3

ACC NR: AP6019036 (A) SOURCE CODE: UR/0173/65/018/006/0064/0071

AUTHOR: Varshavskiy, I. L.; Malov, R. V.; Chalabov, V. G.; Goncharov, V. V.

ORG: KTB Minavtotransa ArmSSR

TITLE: Catalytic purification of exhaust gases of carburetor engines on alumino-platinum balls

SOURCE: AN ArmSSR. Izvestiya. Seriya tekhnicheskikh nauk, v. 18, no. 6, 1965, 64-71

TOPIC TAGS: exhaust gas, carbon monoxide, aluminum compound, platinum, FUEL OXIDATION

ABSTRACT: Oxidation of the toxic components of an incomplete combustion of gases (mostly CO and a small amount of cancerogenic substances) on a catalyst is one of the methods for rendering exhaust gases harmless. The burning of small amounts of CO on the catalyst consists of three processes: diffusion of the CO molecules on the surface of the catalyst, catalytic oxidation of CO into CO_2, and diffusion of the CO_2 molecules into the atmosphere. During continuous oxidation of CO all of these processes occur simultaneously. The quasistationary method offered by D. A. Frank-Kamenetskiy (Zhurnal fizicheskoy khimii 13, 756, 1939) was used during the study of the oxidation of CO on Al-Pt balls. The study was made in a special apparatus consisting of two parts. One part was used to study the changes in the volume of flowing gas, and the other to study the degree of neutralization of the entire amount of the engine's exhaust gases.

Card 1/3

MALOV, R.V., kand. tekhn. nauk; GARGALA, R.V., inzh.; IGNATOVICH, I.V.; SOLOPIY, I.S., inzh.

Developing and testing exhaust gas neutralizers for diesel-electric powered trucks. Gor. zhur. no. 12:70-72 D '65. (MIRA 18:12)

1. TSentral'nyy nauchno-issledovatel'skiy i konstruktorskiy institut toplivnoy apparatury avtotraktornykh i statsionarnykh dvigateley (for Malov, Gargala, Ignatovich). 2. Gosudarstvennyy proyektno-konstruktorskiy i eksperimental'nyy institut ugol'nogo mashinostroyeniya (for Solopiy).

MALOV, R.V., kand.tekhn.nauk; VORONIN, V.G., inzh.

Decontaminating exhaust gases of the DT-20 tractor diesel engines. Trakt. i sel'khozmash. no.2:15-17 F '65.

(MIRA 18:4)

1. Laboratoriya avtomobil'nykh neytralizatorov TSentral'nogo nauchno-issledovatel'skogo i konstruktorskogo instituta toplivnoy apparatury avtotraktornykh i statsionarnykh dvigateley.

MALOV, R.V., kand. tekhn. nauk; IGNATOVICH, I.V., inzh.; GARGALA, R.V., inzh.

Testing neutralizers for exhaust gases. Gor. zhur. no.8: 71-72 Ag '64. (MIRA 17:10)

CHALABOV, V.G.; MALOV, R.V.

Decrease in the toxicity of gases exhausted by transport machinery in the mining industry. Izv. AN Arm. SSR. Ser. tekh. nauk 17 no.2: 76-79 '64 (MIRA 17:7)

1. TSentral'nyy nauchno-issledovatel'skiy i konstruktorskiy institut toplivnoy apparatury i stantsionarnykh dvigateley.

ACCESSION NR: AR3010581

region. Usually the formation of the basic drop was accompanied by the formation of a very small "satellite drop," flying to the side from the basic trajectory. At the initial moment of flight, a strong pulsating deformation of the drop was observed. During the process of the flight of a group of drops, coalescence of individual drops into one was frequently observed. During the flight of the drop (Re 10-50), a needle-shaped "steam trail" 70 d-90 d long, the presence of which during intensive evaporation leads to a reduction of Ψ, is formed behind it. An equation of mass exchange of the drop $Sh = 2(1 + 0.3\ Re^{0.5} Sc^{0.33})$, in satisfactory agreement with the data of other authors, was obtained according to the results of experiments at $0 \leq Re \leq 6$. V. Dunskiy.

DATE ACQ: 30Sep63 SUB CODE: CH ENCL: 00

Card 2/2

ACCESSION NR: AR3010581 S/0081/63/000/016/0351/0351

SOURCE: RZh. Khimiya, Abs. 16 I 121

AUTHOR: Malov, R. V.

TITLE: Flight and evaporation of fine, freely flying drops

CITED SOURCE: Tr. Odessk. un-ta. Ser. fiz. n., v. 152, no. 8, 1962, 51-58

TOPIC TAGS: drop, evaporation, Reynolds number, mass exchange

TRANSLATION: The evaporation of freely flying single drops of water, ethyl alcohol, ethyl ether, gasoline, kerosene, and diesel fuel, with diameter d = 0.1-1.5 mm, in the region of small Re, was investigated in a vertical furnace at a temperature of 370°. The drops were formed by blowing the liquid from the end of a glass capillary. The initial stage of the motion of the drops was studied by means of movie film at a frequency of 1000 frames per second. Curves of the time variation of the drop velocity were obtained, according to which the evaporation rate was determined on the basis of the equation of motion of the drop, considering the variation of the coefficient of head-on resistance Ψ in the super-Stokes

Card 1/2

L 18219-63
ACCESSION NR: AT3001868

a characteristic curve having a rectilinear region is always observed, the following method is developed: A step-by-step measurement is undertaken of the distance segments that correspond to a given change in optical density of the exposed emulsion across the edge of the image. The curve of optical density vs. the linear displacement of the measuring device is plotted, and the midpoint of the rectilinear segment of that curve is selected as the representation of the boundary of the image of the object photographed. While the selection of the midpoint of the rectilinear segment may appear somewhat arbitrary, a comparison of such determinations vs direct measurements of the images of a 3-mm sphere has confirmed the justification of this selection. The optical densities were measured with a high-speed microphotometer produced by the VEB "Carl Zeiss" of the Association of VEB's "Optik" at Jena, GDR. An extension of the method to the measurement of the diameter of a moving particle, for example a droplet having a blurred outline because of its motion, is explained in terms of the widths and brightnesses of the rectilinear portions of the resulting image. Orig. art. has 3 figures.

ASSOCIATION: none

SUBMITTED:	00	DATE ACQ:	11Apr63	ENCL:	00
SUB CODE:	PG, PH	NO REF SOV:	000	OTHER:	000

Card 2/2

L 18219-63 EWT(l)/EWT(m)/BDS/T-2/EED-2/EED(b)-3/EEO-2 ASD/IJP(C)/SSD

S/2909/62/000/006/0166/0169

ACCESSION NR: AT3001868

AUTHOR: Malov, R. V.

TITLE: Measurement of the diameters of flying droplets by means of transillumination photography

SOURCE: AN SSSR. Institut dvigateley. Trudy, no. 6, 1962, 166-169

TOPIC TAGS: photography, blurring, blurred, image, halation, halo, characteristic curve, sensitometry, photographic density, microphotometer, Zeiss, droplet, transillumination

ABSTRACT: The paper presents a method which seeks to improve the measurement of small bodies photographed by the transillumination method, in which for various reasons the outline of the body has become indistinct or blurred. The method proposes the use of an evaluation of the exposure gradient on the photographic film across the blurred border of the object. Assuming that the characteristic curve of any photographic material comprises a curved underexposure segment, a linear segment, and a curved overexposure segment, and noting that, if the transition of the variation of photographic density on the boundary of the image of an object is taken in a direction perpendicular to its edge,

Card 1/2

MALOV, R.V.

Using pulsating light sources for the Schlieren cinematography of transient phenomena. Trudy Lab. dvig. no.5:167-171 '60. (MIRA 14:3)
(Motion-picture photography)

~~64950~~ 69650

S/024/60/000/02/024/031
E194/E155

The Evaporation of Single Free Droplets of Various Liquids during Small Changes in the Reynolds Criterion of a Flow Passing over the Drops

in Figs 3 and 4. Values of the evaporation constant for motionless drops in a medium of temperature up to 370 °C for water, ethonol, ether, gasolene, kerosene, and diesel fuel grade DS are tabulated in an appendix.

Acknowledgement is made to Professor D.N. Vyrubov for his participation in the study of the experimental results.

Card 5/5

There are 4 figures, 1 table and 23 references, of which 12 are Soviet, 8 English and 3 German.

SUBMITTED: November 2, 1959

4

69650

S/024/60/000/02/024/031
E194/E155

The Evaporation of Single Free Droplets of Various Liquids during Small Changes in the Reynolds Criterion of a Flow Passing over the Drops

of light fuels such as gasolene and kerosene under certain circumstances changes in the droplet composition during the process of evaporation caused the curves to be somewhat different in shape. The equation of mass exchange of a drop with the surrounding medium is then expressed in criterial form, as in Eq (2.1), and Fig 2 gives test results for uniform fluids expressed in the appropriate coordinates. The evaporation rate constant is then defined; it applies to that part of the curve which follows Sreznevskiy's law. In studying the droplet evaporation it is important to know the temperature of the droplets, which in the case of evaporation of uniform fluids may be determined by Maxwell's formula (4.1), provided the temperature of the medium is not too high. In the present work the droplet temperature was calculated from the rate of evaporation by a method that has been described elsewhere. Droplet temperature as a function of the temperature of the surrounding medium is plotted

Card 4/5

4

The Evaporation of Single Free Droplets of Various Liquids during Small Changes in the Reynolds Criterion of a Flow Passing over the Drops

valid. Eq (1.6) is then derived for the rate of change of drop surface with time. When the drop is not in motion this expression simplifies to the form of Sreznevskiy's law. It is then shown that when a drop is in motion in a flow the conditions change during the process of evaporation, so that Sreznevskiy's law cannot be fulfilled. Fig 1 shows typical experimental curves for the evaporation of free droplets of ethyl ether in a flow of air at various temperatures. The numbers marked on the curves correspond to values of the Reynolds criterion at the corresponding times. It will be seen that the law of linear change of drop surface with time is not true throughout the process at any temperature. Nevertheless, each of the curves contains a straight line portion wherein the law is valid. Test results were also obtained for water and ethonol, giving curves similar to those of Fig 1. Similar curves were also obtained for heavy oils such as diesel fuel grade ES, but in the case

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E194/E155

The Evaporation of Single Free Droplets of Various Liquids during Small Changes in the Reynolds Criterion of a Flow Passing over the Drops

passed through the heater they were photographed ten times through a window by means of a special camera. From the photographs it was possible to construct curves of change of speed with time as the droplets passed the window. Numerous tests were made for each set of conditions and then the droplet diameter was calculated by means of formula (0.1). The correctness of this method of assessing the diameter was checked by measurements of relatively large drops: the differences between this and the photographic method of measurement were about 3%. It should be mentioned that A.M. Zotov, V.L. Sokolov and V.A. Segen' took part in the experimental work. The first measurements of the rate of droplet evaporation were made in 1882 by B. Sreznevskiy, who formulated the law that during evaporation the change in the drop surface is linear with time. This law is undoubtedly valid for motionless drops but there is some doubt whether it is true for drops in a flow of air: the present authors consider that it is only approximately

Card 2/5

~~69650~~ 69650

24.5400

S/024/60/000/02/024/031
E194/E155

AUTHORS: Apashev, M.D., and Malov, R.V. (Moscow)

TITLE: The Evaporation of Single Free Droplets of Various Liquids during Small Changes in the Reynolds Criterion of a Flow Passing over the Drops

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1960, Nr 2, pp 185-191 (USSR)

ABSTRACT: This article describes a study of the evaporation of single free fine droplets (0.050-0.200 mm diameter) of liquid. The study was undertaken both to establish the general nature of evaporation and also to obtain experimental data for use in calculations of droplet evaporation in flows at low values of Reynolds number. The investigations were made in the Engine Laboratory of the Academy of Sciences, USSR. The operative part of the rig was a vertical elliptic heater one metre long and 30 x 30 mm cross-section. Drops were introduced from above and arrangements were made to produce a series of uniform drops which at need could range in diameter from 1.00 to 1.05 mm. By the time the drops reached the heater their speed was about 1 metre per second. As they

Card 1/5

69814
S/024/60/000/01/022/028
E081/E335

Field of Vapour Concentration and Temperature Field Produced by Floating Liquid Drops with Values of the Reynolds Flow Criterion of 10-50

There are 3 figures and 5 references, 1 of which is English, 1 German and 3 are Soviet.

SUBMITTED: November 2, 1959

Card 4/4

Field of Vapour Concentration and Temperature Field Produced by Floating Liquid Drops with Values of the Reynolds Flow Criterion of 10-50

with vapour nearly saturated at the temperature of the drop;

3) The vapour-concentration gradient (temperature gradient) along the axis of the "vapour trail" attains a large magnitude in the region behind the drop extending from d to 3d where d is the drop diameter. At greater distances there is a moderately decreasing gradient of temperature and concentration, small in absolute size;

4) At the boundaries of the "vapour trails" the gradients of concentration and temperature in the horizontal direction are appreciable. The refractive index changes in a small distance from the value corresponding to the constitution and temperature of the vapour in the given section of the "trail" to the value of the refractive index of the undisturbed air at its own temperature.

Card 3/4

Field of Vapour Concentration and Temperature Field Produced by Floating Liquid Drops with Values of the Reynolds Flow Criterion of 10-50

Figure 2 - Schlieren photograph of an evaporating floating drop of benzine photographed with the Foucault knife-edge horizontal and positioned above the principal optic axis of the system. Drop diameter 1.49 mm, velocity 0.281 m/s, temperature of medium 23 °C, Reynolds criterion 27.
Figure 3 - Schlieren photograph of an evaporating floating drop of ethyl ether, photographed with the Foucault knife-edge vertical. Drop diameter 1.60 mm, velocity 0.300 m/s, temperature of medium 25 °C, Reynolds criterion 30]. The following conclusions are drawn from the data:
1) The form of the field is a needle-shaped "vapour trail" extending in the opposite direction from the motion of the drop to a distance 70 - 90 times its diameter;
2) Immediately behind the drop is a region of optical inhomogeneity, having an appreciably different refractive index from the surrounding medium. Its length is about one drop diameter. In all probability this region is filled

69814

26.5000

S/024/60/000/01/022/028
E081/E335

AUTHOR: Malov, R.V. (Moscow)

TITLE: Field of Vapour Concentration and Temperature Field Produced by Floating Liquid Drops with Values of the Reynolds Flow Criterion of 10-50

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1960, Nr 1, pp 158-160 (USSR)

ABSTRACT: Analysis of the concentration and temperature field around floating liquid drops is of importance in all applications where liquid fuel is used. In the present experiments, Schlieren photographs were taken of approximately 1.5 mm dia drops of iso-octane, ethyl ether, benzine and diesel fuel DS during free fall at temperatures between 25 and 170 °C. Special positioning of the Foucalt knife-edge was necessary to make the optical inhomogeneities visible. The results are illustrated by Figures 1, 2 and 3 [Figure 1 - Schlieren photograph of an evaporating floating drop of benzine, photographed with the Foucault knife-edge horizontal and positioned below the principal optic axis of the system. Drop diameter 1.28 mm, velocity 0.345 m/s, temperature of the medium 23 °C, Reynolds criterion 28.5.

Card1/4

MALOV, R. V., Cand Tech Sci -- (diss) "Evaporation of single, free-falling minute droplets of various viscosities under small values of the Reynolds' criterion for the flowing of droplets in a stream." Moscow, 1960. 13 pp; (All-Union Correspondence Polytechnic Inst, Chair of "Automobiles"); 200 copies; price not given; (KL, 30-60, 138)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031900036-6

MALOV, N.V.

Device for reproduction of drawings. Politekh. obuch. no.8:90 Ag '58. (MIRA 11:9)

1.Pedinstitut, g. Irkutsk.
(Copying processes)

SOV-3-58-8-19/26

AUTHOR: Malov, N.V.

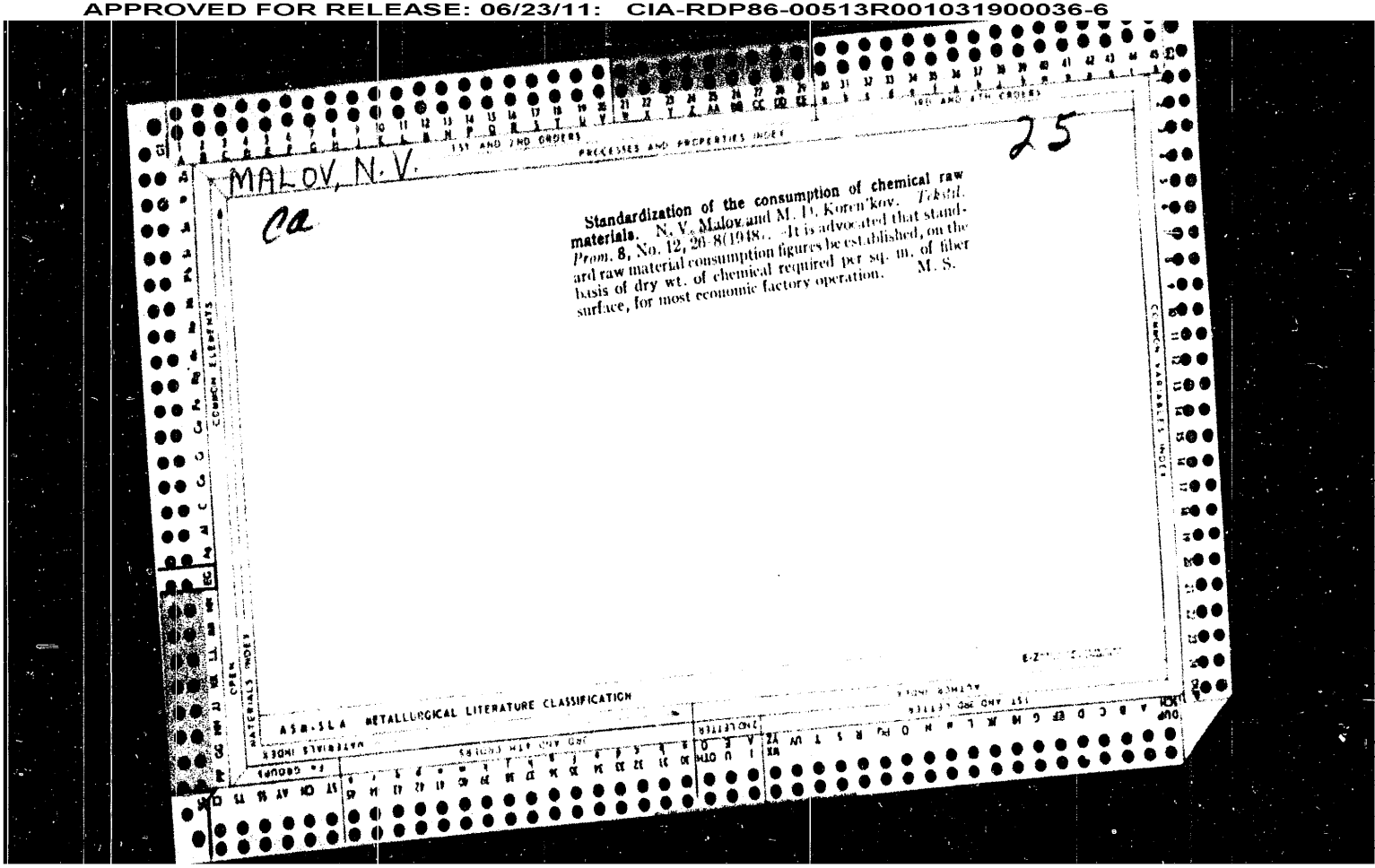
TITLE: A Device for Copying Pictures (Ustanovka dlya kopirovaniya risunkov)

PERIODICAL: Vestnik vysshey shkoly, 1958, Nr 8, p 74 (USSR)

ABSTRACT: While preparing themselves for laboratory exercises in cinematography and photography, the students of the Irkutskiy pedagogicheskiy institut (Irkutsk Pedagogical Institute) use a home-made copying device. The device permits a picture, a draft or a scheme to be drawn anew in several minutes and in the required size. The principal part is an epidiascope, the object to be copied is placed in front of the epidiascope on a special holder as shown in fig. 1. To obtain a picture in the scale of 1:1 the screen is placed at a distance of 88.4 cm from the geometrical center of the objective and after the epidiascope has been switched on the image is focused by moving the epidiascope. By changing the distance, a smaller or bigger picture of the object may be obtained.

ASSOCIATION: Irkutskiy pedagogicheskiy institut (Irkutsk Pedagogical Institute)

Card 1/1



MALOV, N.V.

Ca

25

Standardization of the consumption of chemical raw materials. N. V. Malov and M. D. Koren'kov. *Tekstil. Prom.* 8, No. 12, 26–8(1948).—It is advocated that standard raw material consumption figures be established, on the basis of dry wt. of chemical required per sq. m. of fiber surface, for most economic factory operation. M. S.

MALOV, N.N.; KOZLOVA, A.N.

New demonstrations in physics. Usp. fiz. nauk 84 no.3:522-525 N '64. (MIRA 18:2)

IVERONOVA, V.I., prof., red.; GRABOVSKIY, M.A., dots., red.; KONONKOV, A.F., kand. fiz.-mate. nauk, red.; MALOV, N.N., prof., red.; TELESNIN, R.V., prof., red.; USAGIN, S.I., st. prepod., red.; YAKOVLEV, K.P., prof., red.; YAKOVLEV, I.A., prof., red.

[Methodology and technique of lecture demonstrations in physics; transactions] Metodika i tekhnika lektsionnykh demonstratsii po fizike; sbornik trudov. Moskva, Izd-vo Mosk. univ., 1964. 280 p. (MIRA 17:5)

1. Mezhvuzovskaya konferentsiya po lektsionnym demonstratsiyam po kursu obshchey fiziki. 1st.

POLYANINA, Galina Dmitriyevna; MALOV, N.N., prof., red.; TIKHOMIROVA, O.I., red.; SMIRNOVA, M.I., tekhn. red.

[Demonstrations in electrical engineering and radio engineering lectures] Demonstratsii na lektsiiakh po elektrotekhnike i radiotekhnike; posobie dlia pedagogicheskikh institutov. Moskva, Uchpedgiz, 1963. 98 p. (MIRA 16:10)

1. Zaveduyushchiy kafedroy eksperimental'noy fiziki, Moskovskiy gosudarstvennyy pedagogicheskiy institut im. V.I.Lenina (for Malov).
(Radio) (Electric engineering)

MALOV, N.N., prof. (Moskva)

International system of units in the teaching of physics. Fiz. v shkole 23 no.1:22-24 Ja-F '63. (MIRA 16:4)
(Units) (Physics--Study and teaching)

MALOV, N. N.

Interpretation of the physical concept of "mass." Izv. vys. ucheb. zav.; fiz. no.6:8-10 '62. (MIRA 16:1)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut imeni Lenina.

(Mass(Physics))

BELOGORSKAYA, N.I.; BLUDOV, M.I.; BRAVERMAN, E.M.; BULATOV, N.P.; GALANIN, D.D.; GOL'DFARB, N.I.; YEVROPIN, G.P.; YEGOROV, A.L. YENOKHOVICH, A.S.; ZVORYKIN, B.S.; IVANOV, S.I.; KAMANETSKIY, S.Ye.; KRAUKLIS, V.V.; LISENKER, G.R.; MALOV, N.N.; MANOVETOVA, G.P.; MENSHUTIN, N.F.; MINCHENKOV, Ye.Ya.; PERYSHKIN, A.V.; POKROVSKIY, A.A.; POPOV, P.I.; RAYEVA, A.F.; REZNIKOV, L.I.; SOKOLOV, I.I.; YUSKOVICH, V.F.; ZVENCHIK, Z.Ye.

Dmitrii Ivanovich Sakharov; obituary. Fiz.v shkole 22 no.1:109-110 Ja-F '62. (MIRA 15:3)
(Sakharov, Dmitrii Ivanovich, 1889-1961)

MALOV, N.N.

E.Angerer's book "Technical methods in physical investigations" [in German] Reviewed by N.N.Malov. Usp.fiz.nauk 71 no.1:170-171 My '60. (MIRA 13:5)
(Physical laboratories--Equipment and supplies)
(Physical instruments) (Angerer, E.)

S/053/60/070/02/010/016
B006/B007

AUTHORS: Malov, N. N., Orlova, N. P., Selivanenko, N. Ye., Fedotov, I. I.

TITLE: Several Demonstration Lectures in a Course on Physics

PERIODICAL: Uspekhi fizicheskikh nauk, 1960, Vol 70, Nr 2, pp 375-377 (USSR)

ABSTRACT: The present article describes several demonstrations carried out at the physics room of the Moskovskiy gosudarstvennyy pedagogicheskiy institut imeni Lenina (Moscow State Pedagogical Institute imeni Lenin), and given at the Moscow Colloquium of Physicists on May 13, 1959. The demonstrations concern: 1) Foucault's experiment, 2) Newton's third law, 3) The conservation of the mechanical angular momentum, 4) The comparison of electric oscillation frequencies, 5) The penetrability of X-rays, 6) The magnetic field in the interior of a conducting tube, and 7) a model of Stern's experiment. There are 5 figures.

Card 1/1

MALOV, N.N. (Moskva)

Aleksandra Andreevna Glagoleva-Arkad'eva; obituary. Fiz. v shkole 20 no.5:28-29 S-O '60. (MIRA 13:11)
(Glagoleva-Arkad'eva, Aleksandra Andreevna, 1884-1945)

MALOV, N.N., prof.(Moskva); LERNER, Ya.F. (Moskva); SHAMASH, S. Ya.

Discussion of the electrical engineering program. Fiz. v shkole 20 no.2:59-62 Mr-Ap '60. (MIRA 15:4)

1. Zaveduyushchiy kabinetom fiziki i elektrotekhniki Moskovskogo instituta usovershenstvovaniya uchiteley (for Shamash).
(Electric engineering--Study and teaching)

GOLOVINA, I.F.; MALOV, N.N.

The theory of geysers. Izv.AN SSSR.Ser.geofiz. no.7: 922-929 Jl '60. (MIRA 13:7)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut imeni V.I.Lenina i Moskovskiy filial geograficheskogo obshchestva. (Geysers)

MALOV, N.N.

Ostwald's dilution law in a generalphysics course. Izv. vys. ucheb. zav.; fiz. no.6:172 '60. (MIRA 14:3)

1. Moskovskiy gosudarstvennyy pedinstitut imeni Lenina.
(Electrolytes)

83365

S/139/60/000/004/030/033
E032/E514

On a Method of Measuring the Frequency of Electrical Oscillators

which one of the bases touches the horizontal axis. The above expression was obtained in Ref.1 empirically and the purpose of the present paper is to establish it mathematically. There are 2 figures and 1 Soviet reference.

ASSOCIATION: Moskovskiy pedinstitut imeni Lenina
(Moscow Institute of Education imeni Lenin)

SUBMITTED: November 27, 1959

Card 2/2

83365

S/139/60/000/004/030/033
E032/E514

9.6000

AUTHOR: Malov, N.N.

TITLE: On a Method of Measuring the Frequency of Electrical Oscillators

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1960, No.4, pp. 233-234

TEXT: Recently, Fyurstenberg (Ref.1) described a new method for measuring frequency. The basic idea of the method is as follows: the unknown frequency ω_1 and a standard frequency ω_2 are applied to the vertical plates of an oscilloscope, while a very much lower frequency Ω is applied to the horizontal plates. By varying Ω a stationary pattern can be obtained on the screen of the oscilloscope. The form of the pattern is similar to a hollow cylinder projected onto a screen. The cylinder has obliquely cut off bases. Fyurstenberg stated that the relation between the three frequencies is given by

$$\omega_1 = N(\omega_2 \pm \Omega), \quad (1)$$

where N is an integer and is equal to the number of points at

Card 1/2

DARKSHEVICH, V.N.; MALOV, N.N.

Possibility of simplifying clinical chronaximetric investigations. (MIRA 12:4)
Biofizika 4 no.2:242-243 '59.

1. Gosudarstvennyy nauchno-issledovatel'skiy institut fizioterapii, Moskva i Gosudarstvennyy pedagogicheskiy institut imeni V.I. Lenina, Moskva.
(NERVOUS SYSTEM, physiol.
chronaximetry, simplification (Rus))

MALOV, N.N.

Heat and energy. Izv. vys. ucheb. zav.; fiz. no.4:168 '59.
(MIRA 13:3)

(Heat) (Force and energy)

MALOV, Nikolay Nikolayevich; LUBNOVA, V.Ya., red.; MURASHOVA, N.Ya., tekhn.red.

[Textbook of electrical technology and radio engineering; for pedagogical institutes] Kurs elektrotekhniki i radiotekhniki; dlia pedagogicheskikh institutov. Izd.5., perer. i dop. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1959. 424 p. (MIRA 12:12)
(Electric engineering) (Radio engineering)

SOV/58-59-8-18585

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 8, p 22 (USSR)

AUTHOR: Malov, N.N.

TITLE: The Propagation of TE Waves in a Laminated Structure

PERIODICAL: Uch. Zap. Mosk. gos. ped. in-ta, 1958, Vol 138, pp 197-206

ABSTRACT: The propagation of a TE wave is investigated in a system consisting of two dielectric plates separated by a layer of air and bounded by metallic sheets. The distribution of the field, the attenuation in the dielectric for different parameters of the laminated medium, and the retardation caused by the system are computed. It can be seen from the accompanying diagrams that the creation of a gap between the plates allows one to select conditions under which an insignificant decline in the concentration (in comparison with the case that the gap is absent) will be attended with a very appreciable diminution of absorption. The retardation depends essentially upon the position of the plates.

I.F. Dobrovol'skiy

Card 1/1

MALOV, N.N.

Analysis of certain electrophysiological experiments utilizing the ionic theory of excitation. Uch.zap.MGPI 138:135-142 '58. (MIRA 13:5)

(Electrophysiology)

67977

SOV/112-59-21-44985

9.9000

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 21, p 188 (USSR)

AUTHOR: Malov, N.N.

TITLE: The Propagation of a TE-Wave in a Laminar Structure

PERIODICAL: Uch. zap. Mosk. Gos. ped. in-ta, 1958, Nr 130, pp 125-133

ABSTRACT: The propagation of a wave of TE-type in a system consisting of two parallel dielectric laminas separated by an air layer and bounded by metal laminas perpendicular to them, is investigated. The field distribution and the damping in the dielectric at various parameters of the laminar medium are calculated. The graphs supplied show, that the existence of a clearance between the laminas enables one to choose conditions, under which an insignificant deterioration of the concentration (compared with the case of no clearance) is accompanied by an appreciable reduction of absorption.

I.F.D.

Card 1/1

47-58-2-6/30

AUTHOR: Malov, N.N., Professor (Moscow)

TITLE: Vuz Entrance Examinations on Physics (O vuzovskikh prigotovitel'nykh ekzamenakh po fizike)

PERIODICAL: Fizika v Shkole, 1958, Nr 2, pp 45-46 (USSR)

ABSTRACT: The author describes the low level of preparedness of the pupils passing the entrance examinations on physics for the Physico-Mathematical Faculty of the Moskovskiy gosudarstvennyy pedagogicheskiy institut imeni V.I. Lenina (Moscow State Pedagogical Institute imeni V.I. Lenin). A total of 23% of the pupils were rejected as insufficiently prepared. The author says that the fault lies with teachers, who do not take enough interest in their lessons, do not illustrate the lessons with experiments, and are too liberal in awarding good marks to pupils with insufficient knowledge of the subject.

AVAILABLE: Library of Congress

Card 1/1 1. Physics-Study and teaching

ALEKSANDROV, N.V.; MALOV, N.N., prof.; POLYANINA, G.D.; YASHKIN, A.Ya.
MIKHALKEVICH, T.V., red.; TSVETKOVA, V.S., tekhn.red.; POMOMAREVA,
A.A., tekhn.red.

[Practical work in electric and radio engineering; textbook for students of pedagogical institutes] Praktikum po elektrotekhnike i radiotekhnike; posobie dlia studentov pedagogicheskikh institutov. Pod red. N.N. Malova. Moskva, Gos. uchebno-pedagog. izd-vo M-va pros. RSFSR, 1958. 165 p. (MIRA 12:1)
(Electric engineering) (Radio)

MALOV, N.N., [illegible]essor.

Some remarks on V... IUs'kovich's article. Fiz. v shkole 17 no.3: 37-39 My-Je '57. (MLRA 10:6)

1. Gosudarstvennyy pedagogicheskiy institut imeni V.I. Lenina, g. Moskva.
(Physics--Study and teaching)

in Fig.3. It is seen that the best results (see Curve 1 of Fig.3) are achieved if the dielectric extends to the very bottom of the groove, but even with a comparatively thin layer of the dielectric (see Curve 4) the field outside the dielectric is comparatively weak. It is further found that by employing a groove with a dielectric plate, it is possible to reduce the power losses as compared with those of a corresponding fully-metallic waveguide. Thus, for $a = 0$, $b/\lambda = 0.26$, $h = 1.5$ cm, $\lambda = 3$ cm, $\varepsilon = 2$ and $tg\delta = 10^{-4}$, the losses in the groove are somewhat smaller than those of a copper, rectangular waveguide having a cross-section of 2.3 x 1.0 cm^2. It is also pointed out that if the bottom wall of the groove is removed and the propagating wave is enclosed between two metal plates and two dielectric plates which are spaced at a distance $2a$, the resulting system can be used as a waveguide whose efficiency should be higher than that of a metallic waveguide.
There are 5 figures and 6 references, 3 of which are Slavic.

ASSOCIATION: Chair of General Physics of the State Pedagogical Institute (Kafedra obshchey fiziki Gos. pedagogicheskogo Instituta)

Malov, N.N.

AUTHOR: Malov, N.N. 109-10-8/19

TITLE: TE Wave in a Metallic Groove (Volna tipa TE v metallicheskom zhelobe)

PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol.II, No.10, pp. 1289 - 1293 (USSR).

ABSTRACT: A semi-infinite groove having ideally-conducting walls (see Fig.1) is considered. At a distance a from the bottom of the groove, there is a dielectric plate having a thickness b - a , whose permeability = 1 and permittivity is a complex quantity as expressed by Eq.(1). Under the assumption that the losses in the dielectric are small, the field components in the three regions of the system, i.e. below the dielectric plate, in the dielectric and above the dielectric (see Fig.1) can be expressed as shown in the table on p.1289. Equations of the table have to fulfil the boundary conditions expressed by Eqs. (4) and (5), from which the propagation constant of the system is given by Eq.(8). On the basis of the above, it is shown that for every b and ϕ , there exists a certain critical wave λ_k for which the propagation velocity is equal to the velocity of light. The distribution of the z-component of the electrical field along the y axis is considered and this is plotted for various thicknesses of the dielectric

Card1/3

USSR/Human and Animal Physiology, General Problems T-1

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 64898

Author : Malov N.N.
Inst :
Title : Current and Voltage in Electrophysiological Experiments

Orig Pub : Biofizika, 1957, 2, No 5, 614-616

Abstract : Since, according to the ionic theory of excitation, a physiological effect is determined by current and not by voltage, while in the tissues of e.m.f. of polarization depends in a complex manner on the current, then the emergence of this e.m.f. can greatly distort the form of the curve of the current, and the presence of inductances and capacitances in the circuit increases these distortions. When oscillograms of current and voltage were compared, an appreciable difference was detected in the forms of the curves of current and voltage associated with slow processes in which the effect of polarization is strong. Since, when a sinusoidal current is strengthened and its frequency is reduced, the voltage

Card : 1/2

PA - 2568

Heinrich Rudolf Hertz (100 Years since Birthday)

concentrated the radiation of a dipole by means of a metallic cylinder of parabolic cylinder shape and formed a nearly plane wave with the help of which he carried out all basic optical experiments. Hertz discovered the photoeffect and the ability of the cathode bundle to pass through thin metal layers. His pemature death terminated his work. (1 illustration and 5 citations from Slav publications)

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress.

Card 2/2

AUTHOR: MALOV,N.N. PA - 2568

TITLE: Heinrich Rudolf Hertz (100 Years since Birthday)
(Genrikh Rudolf Gerts. K 100-letiyu so dnya rozhdeniya 1857 - 1894, Russian)

PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol 2, Nr 2, pp 131 - 135 (U.S.S.R.)
Received: 4 / 1957 Reviewed: 6 / 1957

ABSTRACT: One of the most important events in physics was the fusion of the two formerly independent branches, namely: electrodynamics and optics. The foundations were laid by Faraday. Maxwell gave this theory an abstract mathematical form, but it was the German Hertz who proved this theory experimentally.

There follows a short life history of Hertz, in which his scientific work is dealt with in detail. In 1879 Hertz experimentically proved the displacement current and the electric rotational field and he discovered the magnetic field of the displacement current. He then derived his famous rectilinear vibrator. He was able to increase frequency up to 5i MHz and was able to observe the influence of oscillations exercised upon an open circuit which was located at a distance of several meters from the vibrator. In 1888 Hertz observed standing waves in the air and measured their velocities. Hertz also dealt with theoretical computations of radiation. He

Malov, N. N.

ARENBERG, Aleksandr Georgiyevich, professor [deceased]; MALOV, N.N., professor, nauchnyy redaktor; ISLANKINA, T.F., redaktor; GUBIN, M.I., tekhnicheskiy redaktor

[Heinrich Hertz, 1857-1894] Genrikh Gerts (1857-1894). Moskva, Izd-vo "Znanie," 1957. 20 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.8, no.23)
(Hertz, Heinrich Rudolph, 1857-1894) (MLRA 10:9)

MALOV, N.N.

MALOV, N.N., prof.; PERYSHKIN, A.V., red.; MAKSAYEV, A.V., tekhn.red.

[Programs of pedagogical institutes; radio engineering] Programmy pedagogicheskikh institutov; radiotekhnika [Moskva] Uchpedgiz, 1957. 6 p. (MIRA 11:3)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye vysshikh i srednikh pedagogicheskikh uchebnykh zavedenii.
(Radio)

MALOV, N.N.

The injustified complexity of some electrophysiological systems.
Biofizika 1 no.6:534-537 '56. (MLRA 10:1)

1. Kafedra fiziki Moskovskogo gosudarstvennogo pedagogicheskogo instituta imeni V.I.Lenina, Moskva.
(ELECTROPHYSIOLOGY) (PHYSIOLOGICAL APPARATUS)

KUDRYAVTSEV, P.S. (G. Tambov) TSALIKHIN, L.M. (G. Serpukhov) DUSHKA, V.G.

Discussion of professor N.N. Malov's article. Fiz.v shkole 15 no.3:39-42 My-Je '55. (MLRA 8:6)

1. 25-ya srednyaya shkola (for Tsalikhin) 2. Srednyaya shkola, Stalinskaia oblast', stantsiya Ignat'yevskaya (for Dushka). (Malov, N.N.) (Physics--Terminology)

MAIOV, N.N., professor (g.Moskva)

Solar corona photographs. Fiz. v shkole 15 no.1:64 Ja-F '55.
(Sun--Corona) (MLRA 8:2)

MALOV, Nikolay Nikolayevich; KUZNETSOVA, Ye.B., redaktor; MURASHOVA, N.Ya., tekhnicheskiy redaktor.

[Course in electrical and radio engineering] Kurs elektrotekhniki i radiotekhniki dlia pedagogicheskikh institutov. Izd.4-e, vnov' perer. i dop. Moskva, Gos.izd-vo tekhniko-teoret.lit-ry, 1955. 476 p. (MLRA 8:9)

(Electric engineering--Study and teaching)
(Radio)

MALOV, N.N.

Some errors in techniques used in electrophysiological experiments.
Uch.zap.MGPI 88:47-52 '54. (MLRA 10:2)
(Electrophysiology)

MALOV, N.N.

TE-wave reflection by a plane interface at oblique angles of incidence
Uch. zap. MGPI 88:43-46 '54. (MLRA 10:2)
(Microwaves) (Polarization (Electricity))

MALOV, N.N.

Approximate calculation of critical waves in T-shaped wave guides.
Uch.zap.MGPI 88:33-36 '54. (MLRA 10:2)
(Wave guides) (Microwaves)